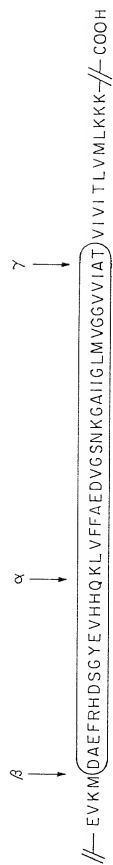


FIG.1

FIG. 2



SEQUENCE LISTING

<110> CHAIN, Benjamin

<120> CHIMERIC PEPTIDES AS IMMUNOGENS, ANTIBODIES THERETO, AND METHODS FOR IMMUNIZATION USING CHIMERIC PEPTIDES OR ANTIBODIES

<130> CHAIN8A

<140> NOT YET ASSIGNED

<141> 2000-12-08

<150> 60/169,687

<151> 1999-12-08

<160> 27

<170> PatentIn version 3.0

<210> 1

<211> 59

<212> PRT

<213> Human

<400> 1

Glu Val Lys Met Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val
1 5 10 15

His His Gln Lys Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys
20 25 30

Gly Ala Ile Ile Gly Leu Met Val Gly Gly Val Val Ile Ala Thr Val
35 40 45

Ile Val Ile Thr Leu Val Met Leu Lys Lys Lys
50 55

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<211> 40

<212> PRT

<213> Human

<400> 2

Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys
1 5 10 15

Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala Ile Ile
20 25 30

Gly Leu Met Val Gly Gly Val Val
35 40

<210> 3

<211> 42

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<213> Human

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<221> misc_feature

<223> Xaa Is L-Asp, D-Asp, or L-iso Asp

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Xaa Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys
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Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala Ile Ile
 20 25 30

Gly Leu Met Val Gly Gly Val Val Ile Ala
 35 40

<210> 4

<211> 43

<212> PRT

<213> Human

<400> 4

Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys
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Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala Ile Ile
 20 25 30

Gly Leu Met Val Gly Gly Val Val Ile Ala Thr
 35 40

<210> 5

<211> 40

<212> PRT

<213> Human

<220>

<221> misc_feature

<223> Xaa is pyroglutamate

<400> 5

Xaa Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys Leu Val
 1 5 10 15

Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala Ile Ile Gly Leu
 20 25 30

Met Val Gly Gly Val Val Ile Ala
 35 40

<210> 6

<211> 32

<212> PRT

<213> Human

<220>

<221> misc_feature

<223> Xaa is pyroglutamate

<400> 6

Xaa Val His His Gln Lys Leu Val Phe Phe Ala Glu Asp Val Gly Ser
 1 5 10 15

Asn Lys Gly Ala Ile Ile Gly Leu Met Val Gly Gly Val Val Ile Ala
 20 25 30

<210> 7
 <211> 26
 <212> PRT
 <213> Human

<400> 7

Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala Ile Ile
 1 5 10 15

Gly Leu Met Val Gly Gly Val Val Ile Ala
 20 25

<210> 8
 <211> 14
 <212> PRT
 <213> Tetanus toxin bacteria

<400> 8

Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu
 1 5 10

<210> 9
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 9

Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Phe Gln Ser Leu Asp
 1 5 10 15

<210> 10
 <211> 30
 <212> PRT
 <213> Pertussis toxin bacteria

<400> 10

Lys Lys Leu Arg Arg Leu Leu Tyr Met Ile Tyr Met Ser Gly Leu Ala
 1 5 10 15

Val Arg Val His Val Ser Lys Glu Glu Gln Tyr Tyr Asp Tyr
 20 25 30

<210> 11
 <211> 17
 <212> PRT
 <213> Tetanus toxin bacteria

<400> 11

Lys Lys Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu
 1 5 10 15

Leu

<210> 12
 <211> 22
 <212> PRT
 <213> Tetanus toxin bacteria

<400> 12

Lys Lys Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys
 1 5 10 15

Val Ser Ala Ser His Leu
 20

<210> 13
 <211> 15
 <212> PRT
 <213> Pertussis toxin bacteria

<400> 13

Tyr Met Ser Gly Leu Ala Val Arg Val His Val Ser Lys Glu Glu
 1 5 10 15

<210> 14
 <211> 27
 <212> PRT
 <213> Tetanus toxin bacteria

<400> 14

Tyr Asp Pro Asn Tyr Leu Arg Thr Asp Ser Asp Lys Asp Arg Phe Leu
 1 5 10 15

Gln Thr Met Val Lys Leu Phe Asn Arg Ile Lys
 20 25

<210> 15
 <211> 24
 <212> PRT
 <213> Pertussis toxin bacteria

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Gly Ala Tyr Ala Arg Cys Pro Asn Gly Thr Arg Ala Leu Thr Val Ala
 1 5 10 15

Glu Leu Arg Gly Asn Ala Glu Leu
 20

<210> 16
 <211> 15
 <212> PRT
 <213> Measles virus

<400> 16

Leu Ser Glu Ile Lys Gly Val Ile Val His Arg Leu Glu Gly Val
 1 5 10 15

<210> 17
 <211> 20
 <212> PRT
 <213> Measles virus

<400> 17

Gly Ile Leu Glu Ser Arg Gly Ile Lys Ala Arg Ile Thr His Val Asp
 1 5 10 15

Thr Glu Ser Tyr
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<210> 18

<211> 17

<212> PRT

<213> Tetanus toxin bacteria

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Trp Val Arg Asp Ile Ile Asp Asp Phe Thr Asn Glu Ser Ser Gln Lys
 1 5 10 15

Thr

<210> 19

<211> 16

<212> PRT

<213> Tetanus toxin bacteria

<400> 19

Asp Val Ser Thr Ile Val Pro Tyr Ile Gly Pro Ala Leu Asn His Val
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<210> 20

<211> 25

<212> PRT

<213> Chlamydia trachomatis

<400> 20

Ala Leu Asn Ile Trp Asp Arg Phe Asp Val Phe Cys Thr Leu Gly Ala
 1 5 10 15

Thr Thr Gly Tyr Leu Lys Glu Asn Ser
 20 25

<210> 21

<211> 23

<212> PRT

<213> Diphteria toxin bacteria

<400> 21

Asp Ser Glu Thr Ala Asp Asn Leu Glu Lys Thr Val Ala Ala Leu Ser
 1 5 10 15

Ile Leu Pro Gly Ile Gly Cys
 20

<210> 22

<211> 39

<212> PRT

<213> Diphteria toxin bacteria

<400> 22

Glu Glu Ile Val Ala Gln Ser Ile Ala Leu Ser Ser Leu Met Val Ala
 1 5 10 15

Gln Ala Ile Pro Leu Val Gly Glu Leu Val Asp Ile Gly Phe Ala Ala
 20 25 30

Thr Asn Phe Val Glu Ser Cys
 35

<210> 23

<211> 21

<212> PRT

<213> Plasmodium falciparum

<400> 23

Asp Ile Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe
 1 5 10 15

Asn Val Val Asn Ser
 20

<210> 24

<211> 17

<212> PRT

<213> Schistoma mansoni

<400> 24

Lys Trp Phe Lys Thr Asn Ala Pro Asn Gly Val Asp Glu Lys Ile Arg
 1 5 10 15

Ile

<210> 25

<211> 14

<212> PRT

<213> Escherichia coli

<400> 25

Gly Leu Gln Gly Lys Ile Ala Asp Ala Val Lys Ala Lys Gly
 1 5 10

<210> 26

<211> 19

<212> PRT

<213> Escherichia coli

<400> 26

Gly Leu Ala Ala Gly Leu Val Gly Met Ala Ala Asp Ala Met Val Glu
 1 5 10 15

Asp Val Asn

<210> 27

<211> 20

<212> PRT